

**PAPIO-MISSOURI RIVER
NATURAL
RESOURCES
DISTRICT**



Memorandum

To: The File

From: Marlin J. Petermann, P.E.
Assistant General Manager

Date: May 15, 2001

Re: Summary of District Activities Related to March 2001
Ice Jam Flooding Along Platte and Elkhorn Rivers

8901 S. 154TH ST.
OMAHA, NE 68138-3621
(402) 444-6222
FAX (402) 895-6543

RECEIVED

AUG 23 2001
**DEPARTMENT OF
NATURAL RESOURCES**

This memorandum is intended to briefly summarize District activities pertaining to the ice jam related flooding which occurred along the Platte and Elkhorn Rivers during March 13-17, 2001. Ice thicknesses on the Platte River averaged twenty (20) inches on March 7th. The ice moved out on its own and the Platte River was essentially clear by noon on March 15th without major damage, although near levee top stages were experienced along the Clear Creek Levee in Saunders County and the Vencil Property on Vencils Island was heavily flooded. Areas of ice dusting performed by NEMA on the Platte River during the week of February 26, 2001 were evident from the air and it is believed helpful in averting any major ice jam flooding this season. The Districts explosives contractor was retained by Region 5/6 Emergency Management Agency to clear a small ice jam on the Elkhorn River near Winslow on March 17th.

I. DAILY LOG

March 13, 2001 - Tuesday

At 7:00 a.m. the District investigated minor ice movement near the mouth of the Elkhorn River that had been reported the previous evening. Later that morning the District flew the Platte River from Fremont to the mouth with Sarpy County EMA Director, Dan Pederson, and verified that a small amount of ice movement was beginning to occur on the Platte River above Salt Creek, but that the Platte below Salt Creek was pretty much wide open to the mouth except for a large ice bridge across the entire channel at Hawaiian Village. (Later that day Sarpy County EMA reported that this ice had moved out and a wide open channel existed all the way from Salt Creek to the Missouri River). An open channel, although narrow at spots, also existed from Highway 6 to the mouth of the Elkhorn River. The Elkhorn River was also flown in the morning from Winslow to the mouth. There was no evidence of ice movement in either the Logan Creek or the Elkhorn River, although large open water areas were noted at some locations.

March 14, 2001 - Wednesday

At 7:00 a.m. the District again flew the Platte and Elkhorn Rivers downstream of Fremont with the District's explosives contractor, John Ranney. Not much had changed from the previous day, but ice movement appeared eminent.

At 4:15 p.m. the District flew the Platte and Elkhorn Rivers from Fremont downstream to I-80 and verified the presence of four (4) ice jams in the Platte River. The Elkhorn River was flowing full of ice at most locations downstream of Arlington to the mouth, so it cleared out its ice up to at least that point this evening. The ice jams on the Platte were located at:

1) Woodcliff Housing Area - 0.1 miles long near the upstream end of the housing area just downstream of the BNSF Railroad. This was a minor jam that was more of an ice bridge backed up behind a relatively short segment of intact ice cover.

2) Sokol Camp Housing Area - 0.5 miles long starting one-quarter mile south of Maple Street (Sokol Camp entrance road). This was a significant ice jam that forced water over a small three (3) foot high berm along the river bank into the Sokol Camp housing area, beginning at about 5:00 p.m. The residents were evacuated.

3) Vencils Island/Clear Creek Levee Area - 1.0 mile long at the Douglas/Sarpy County line (Harrison Street - Sarpy County; Road J - Saunders County) approximately four (4) miles upstream of the mouth of the Elkhorn. This was a major ice jam forcing high stages along the Clear Creek levee (within three (3) feet of levee top) and the flooding of 252nd Street at the Douglas/Sarpy County line and cabins at the north end of the Vencil property. Intact ice cover existed downstream for four (4) miles to the mouth of the Elkhorn.

4) Lincoln Water System Island - 0.2 mile long in the east channel just downstream of the LWS access bridge to the well field island downstream of Highway 6. This was a moderate jam that forced overflows to the east over the LWS entrance road and adjoining ag land.

March 15, 2001 - Thursday

Beginning at 7:00 a.m. the District monitored ice movement and river stages on the Platte River by helicopter and on the ground. Major ice flow was occurring at 7:00 a.m. at most locations in the Platte from Fremont downstream to the Vencils Island area. The Woodcliff, Sokol Camp and Lincoln Water System area jams had all broken loose and an open channel, although narrow at places, existed all the way from the Big Island area at Fremont downstream to the mouth, except for the major jam that remained in place at the Vencils Island/Clear Creek levee area. This jam had moved downstream

about one-mile since last evening and was causing major flooding (3-4 feet deep) on much of the Vencil property on the Vencil Island area and forcing very high stages along the Clear Creek Levee (later measured at 0.6 feet from levee top about 1,200 feet downstream of Saunders County Road H). It was noted from the air that some flow was getting through under the jam and it was slowly working its way out.

At 11:30 a.m. the leading edge of the ice break up reached open water near the mouth of the Elkhorn and a small surge of ice flows and water moved downstream as a channel through the ice pack opened and upstream stages dropped rapidly. The Western Sarpy Levee did not experience any flood waters against it as the ice free Elkhorn River channel provided sufficient capacity to carry the Vencils Island overflows on to the wide open Platte River downstream.

March 16th and 17th - Friday and Saturday

The District flew the Platte River from Highway 6 to upstream of Fremont where an ice jam was reportedly located and verified a good open channel and the river flowing freely throughout the entire reach, although large quantities of break-up-ice and intact ice cover still remained in the channel. In the area of the reported jam the river channel on the north side of a wooded island was clogged with breakup ice but the channel on the other side was flowing freely, so this is considered an open channel.

The District also flew the Elkhorn River in the Winslow area and verified the existence of an ice jam in the Elkhorn about one-half mile east of Highway 77 just upstream of the mouth of Logan Creek. It was backing up ice about one-mile and was flooding agricultural land upstream and downstream of Highway 77 and nearing the Village of Winslow.

On March 17th, at about 1:00 p.m. Region 5/6 Emergency Management Agency Director, Bill Pook, retained the Districts explosives contractor to remove the ice jam. Approximately 18 charges (300 pounds of ANFO) were used to dislodge the jam successfully.

II. STAGES AND DISCHARGES

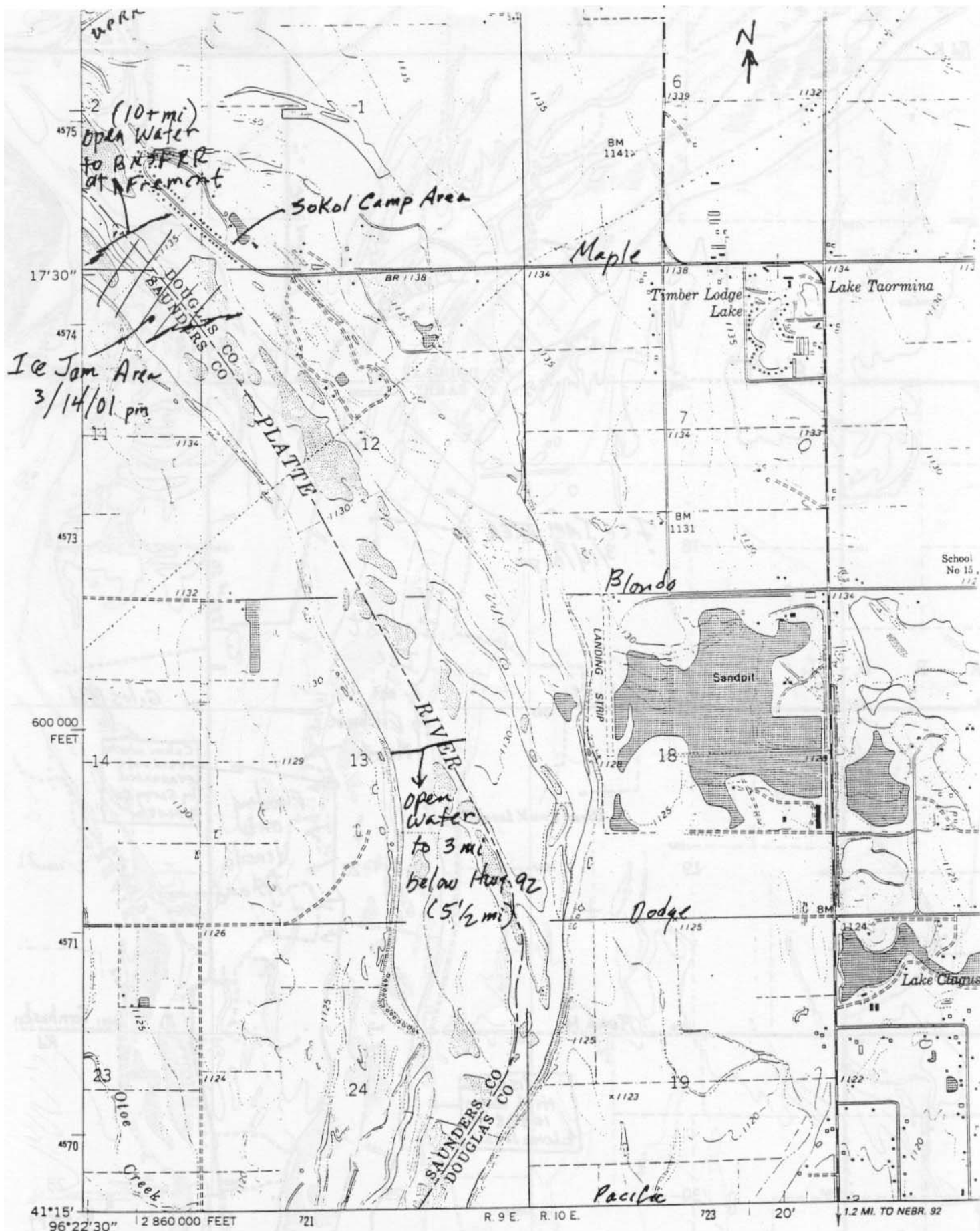
Attached are USGS stream gage records and graphs showing the Platte and Elkhorn River stages at the following locations during this flood event: 1) Platte River at LeShara (Highway 64), 2) Platte River at Ashland (Highway 6), 3) Platte River at Louisville (Highway 50) and Elkhorn River at Waterloo (Highway 64). Unfortunately the LeShara and Ashland gages malfunctioned during this event, so District staff gages readings supplement them. The following observations were made:

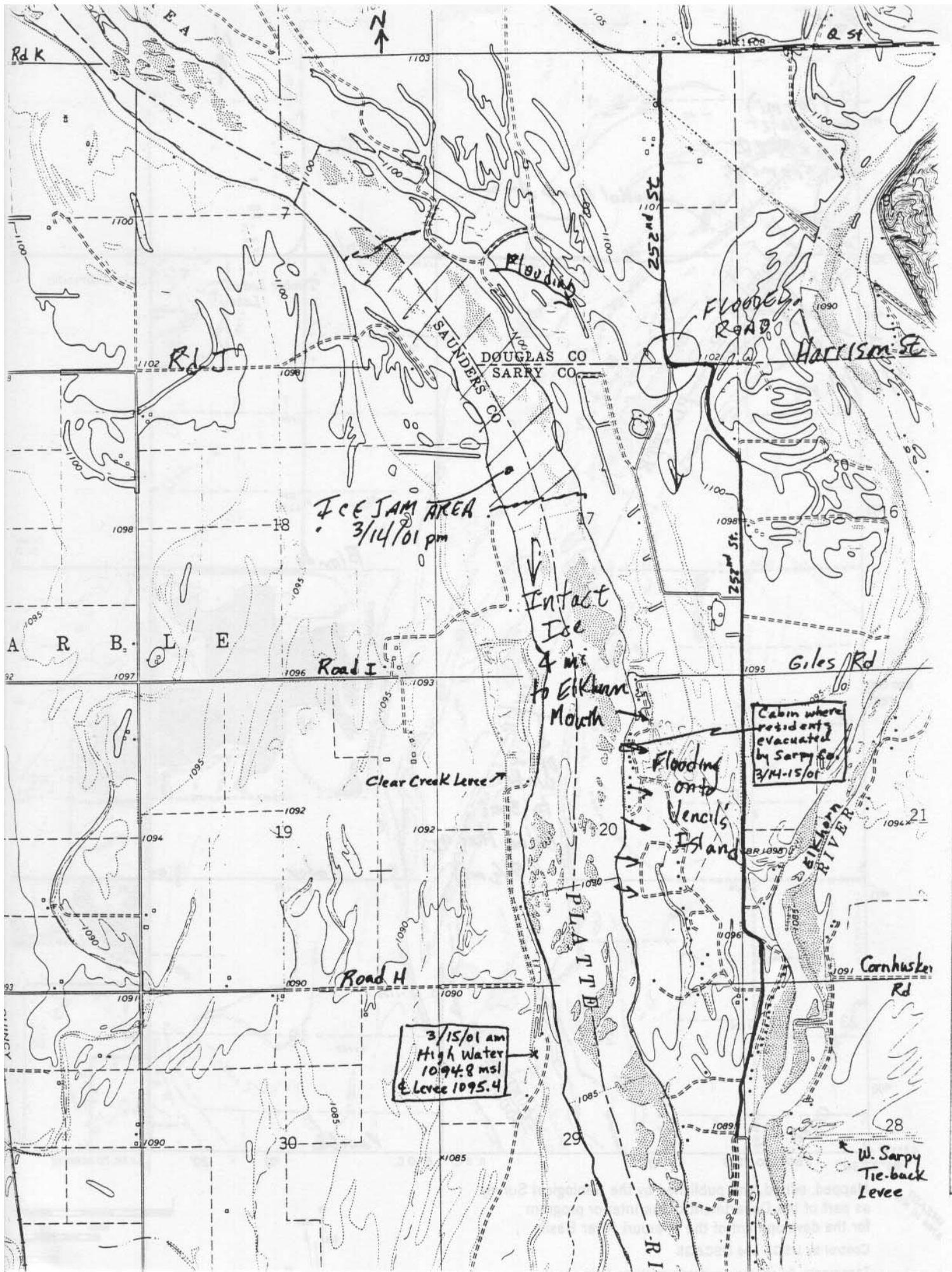
- **LeShara** - Ice moved out and a peak stage occurred at 9:35 a.m. on Thursday, March 15th of 1151.5 ft. msl.

- **Ashland** - Ice moved out and caused a two and one-half foot (2-1/2 Ft.) spike in stage at about noon on Thursday, March 15th. This stage was 1.1 feet above flood stage and momentarily flooded River Road in the Beacon View housing area with six inches to a foot of water and also flooded into the southern end of Camp Ashland just barely covering the lowest point on Highway 63 between the BNSF Railroad and the Camp Ashland entrance gate.
- **Louisville** - Ice and water from the upstream surge moved through the area at about 2:00 p.m. on Thursday, March 15th and caused a 1.5 foot increase in stage.
- **Waterloo** - Ice out on the afternoon of Wednesday, March 14th caused a two-foot increase in stage, but the peak stage actually occurred about 1:00 a.m. on March 16th. Release of the ice jam in the Elkhorn at Winslow on Saturday, March 17th resulted in a 1.5 foot increase in stage at Waterloo some eight hours later at about 9:00 p.m.

III. RECOMMENDATIONS

- Ice dusting performed by the Nebraska Emergency Management Agency (NEMA) during the last week in February was helpful in preventing a major flooding disaster along the Lower Platte River this season. It is recommended that NEMA budget for this activity annually and coordinate closely with the District on the areas to be dusted. One area of particular note is that the channels on both sides of the Lincoln Water system Island downstream of Highway 6 should be dusted.
- The need for closer coordination with the National Weather Service (NWS) was identified during this event. The small berm being overtopped at Sokol Camp was evidently misinterpreted to be Union Dike and a floodwarning after the ice was out was evidently based on the malfunctioning Ashland gage. A coordination meeting to identify key personnel and contacts to verify and report information should be held prior to the next flood season.
- A need for training of spotters and Emergency Management personnel on the terminology and reporting needs during ice breakup and ice jam conditions was also identified during this event. Knowing the difference between an ice bridge, ice jam, open channel, etc. are important in assessing the situation during these operations. A training session with key personnel should be scheduled prior to the next flood season.





Ice JAM AREA
3/14/01 pm

Intact Ice
4 mi
to Elkhorn
Mouth

Clear Creek Levee

FLOODING
onto
Vencil's
Island

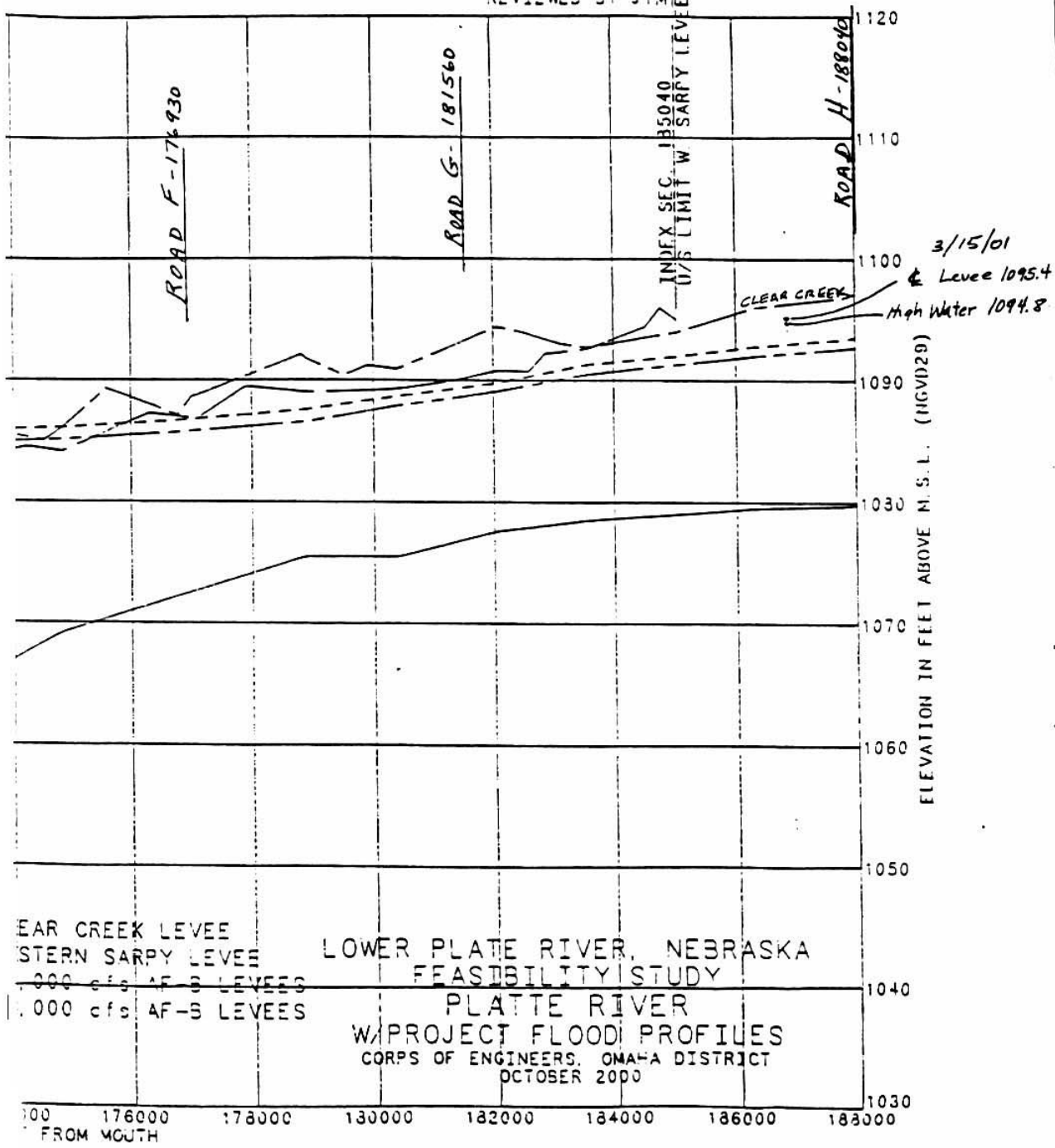
Cabin where
residents
evacuated
by Sarry Co.
3/14-15/01

3/15/01 am
High Water
1094.8 msl
& Levee 1095.4

W. Sarry
Tie-back
Levee

THE COUNTY IS SHOWN AS INSET A PANEL 310195 0180

PREPARED BY TGG
REVIEWED BY JTM



LOWER PLATE RIVER, NEBRASKA
FEASIBILITY STUDY
PLATTE RIVER
PROJECT FLOOD PROFILES
CORPS OF ENGINEERS, OMAHA DISTRICT
OCTOBER 2000

damages to a

Plate B-25
Water Surface Profiles
With -Project Conditions

Lower Platte River and Tributaries
Western Sary/Clear Creek Feasibility Study



US Army Corps
of Engineers
Omaha District



PROVISIONAL DATA SUBJECT TO REVISION

06796500-- PLATTE RIVER AT LESHARA, NE

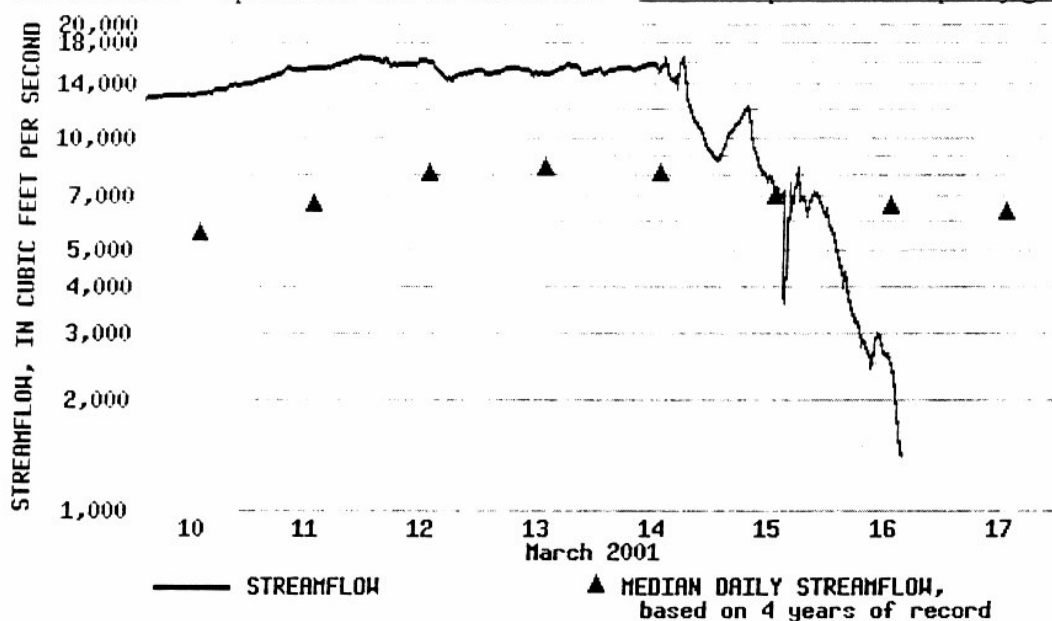


Station funded through cooperative program between the U.S.
Geological Survey and the City of Lincoln.

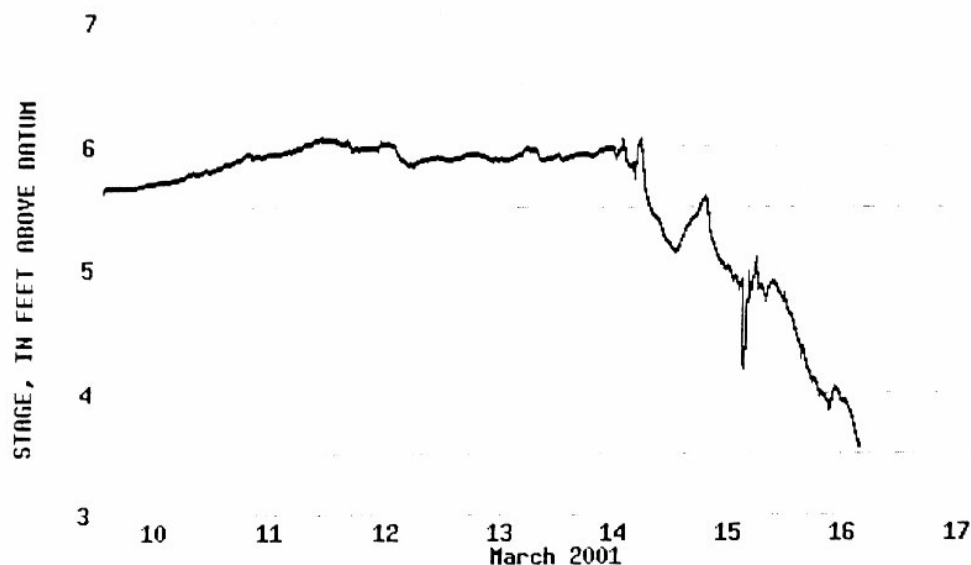
Current Conditions

Flow (ft ³ /s)	Stage (ft)	Date	Time
1,420	3.56	03/16	15:30

Streamflow -- updated Fri Mar 16 15:30 2001 -- [download presentation-quality graph](#)



Stage -- updated Fri Mar 16 15:30 2001 -- [download presentation-quality graph](#)



3/16/01
 - 1st stage 7.1
 - 2nd stage 7.1
 - 3rd stage 7.1
 - 4th stage 7.1

3/15/01 9:35am
 NRD Staff gage - 1151.5msl
 50,
 This gage - 7.6

- ✓ Data used in graph
- ✓ Historical daily mean or peakflow data for this station
- ✓ Return to Current Streamflow Conditions table

Station Description

STATION.-- 06796500 PLATTE RIVER AT LESHARA, NE

LOCATION.--Lat 41°19'12", long 96°24'14", in NW1/4 sec.34., T. 16 N., R. 9 E., Douglas County, Hydrologic Unit 10200202, on left bank 250 ft downstream from bridge on Nebraska Highway 64, 1.0 mi southeast of Leshara, NE.

PERIOD OF RECORD.--June 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1143.86 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor.

Daily Mean Flow Statistics for 03/16 based on 4 years of record, in ft³/s

Latest flow 03/16 15:30	Minimum	Mean	Maximum	80 percent exceedance	50 percent exceedance	20 percent exceedance
1,420	6,000	6,900	8,400	6,000	6,600	8,400
Percent exceedance means that 80, 50, or 20 percent of all daily mean flows for 03/16 have been greater than the the value shown.						

For further information contact:

SURFACE WATER CONTACT
 U.S. Geological Survey
 Rm 406 Federal Building
 100 Centennial Mall North
 Lincoln, Nebraska 68508
 Telephone: (402) 437-5082



PROVISIONAL DATA SUBJECT TO REVISION

06801000-- PLATTE RIVER NEAR ASHLAND, NE

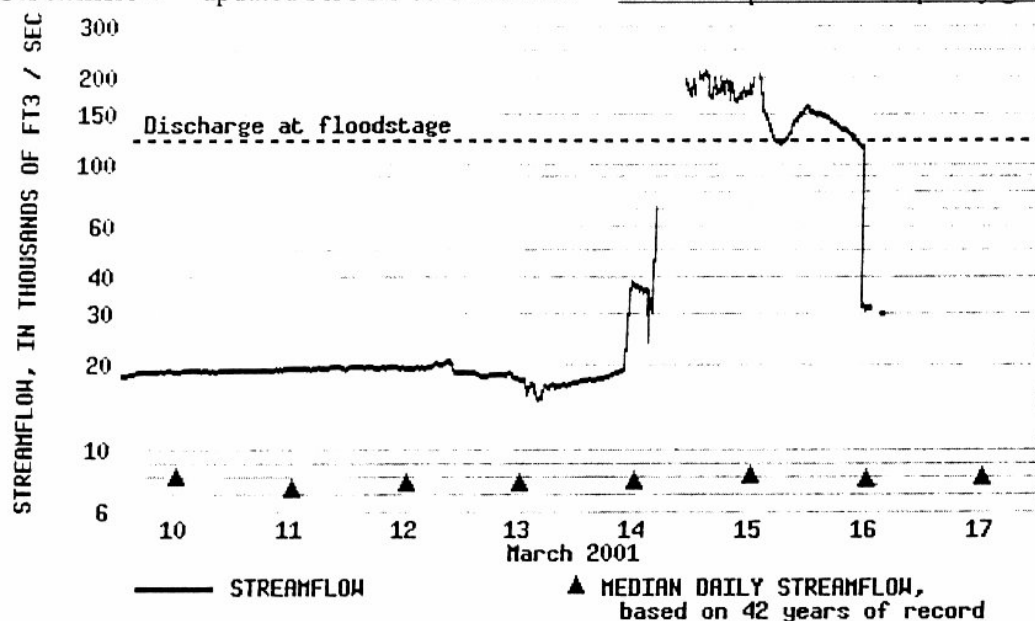


Station funded through cooperative program between the U.S.
Geological Survey and the City of Lincoln.

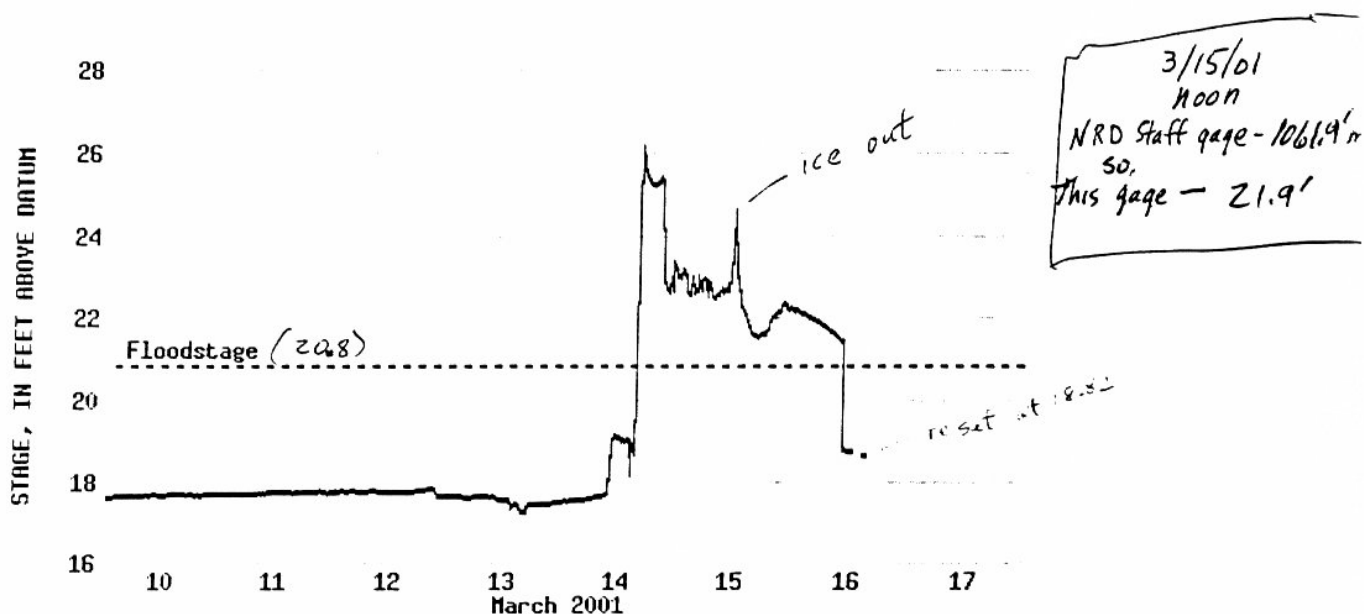
Current Conditions

Flow (ft ³ /s)	Stage (ft)	Date	Time
30,000	18.68	03/16	14:45

Streamflow -- updated Fri Mar 16 14:45 2001 -- [download presentation-quality graph](#)



Stage -- updated Fri Mar 16 14:45 2001 -- [download presentation-quality graph](#)



- [Data used in graph](#)
- [Historical daily mean or peakflow data for this station](#)
- [Return to Current Streamflow Conditions table](#)

Station Description

STATION.--06801000 PLATTE RIVER NEAR ASHLAND, NE

LOCATION.--Lat 41°03'44", long 96°19'28", in SE1/4 SW1/4 sec.29, T.13 N., R.10 E., Sarpy County, Hydrologic Unit 10200202, on left bank upstream side and 35 ft northeast of Highway 6 bridge, 3 mi northeast of Ashland, 2 mi upstream from Salt Creek, and at mile 27.9.

DRAINAGE AREA.--84,200 mi² from state base maps, scale 1:1,000,000.

PERIOD OF RECORD.--August 1928 to May 1953, July 1988 to current year.

REVISED RECORDS.--WDR NE-94-1: 1993 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,040.00 ft above sea level.

Prior to Oct. 1, 1929, chain gage at former highway bridge 1/2 mi upstream at datum 15.83 ft higher. Oct. 1, 1929 to Oct. 7, 1933, staff or chain gage at former bridge datum 14.79 ft higher. Oct. 14, 1933 to Dec. 10, 1938, water-stage recorder at site 950 ft upstream from former bridge at datum 14.79 ft higher. Dec. 11, 1938 to June 16, 1948, water-stage recorder at site of former bridge 1/2 mi upstream at datum 14.79 ft higher. June 17, 1948 to May 11, 1953, 1/2 mi downstream on Highway 6 bridge at datum 12.51 ft higher.

REMARKS.--Records good except for periods of estimated record which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

Daily Mean Flow Statistics for 03/16 based on 42 years of record, in ft³/s

Latest flow 03/16 14:45	Minimum	Mean	Maximum	80 percent exceedance	50 percent exceedance	20 percent exceedance
30,000	2,960	8,330	19,600	5,180	7,950	10,300
Percent exceedance means that 80, 50, or 20 percent of all daily mean flows for 03/16 have been greater than the the value shown.						

**PROVISIONAL DATA SUBJECT TO REVISION**

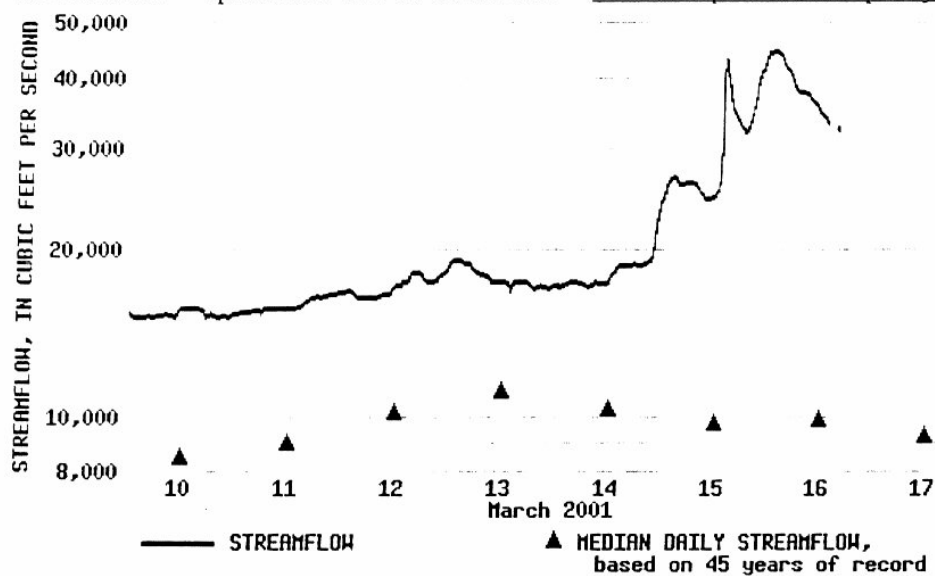
06805500-- PLATTE RIVER AT LOUISVILLE, NE

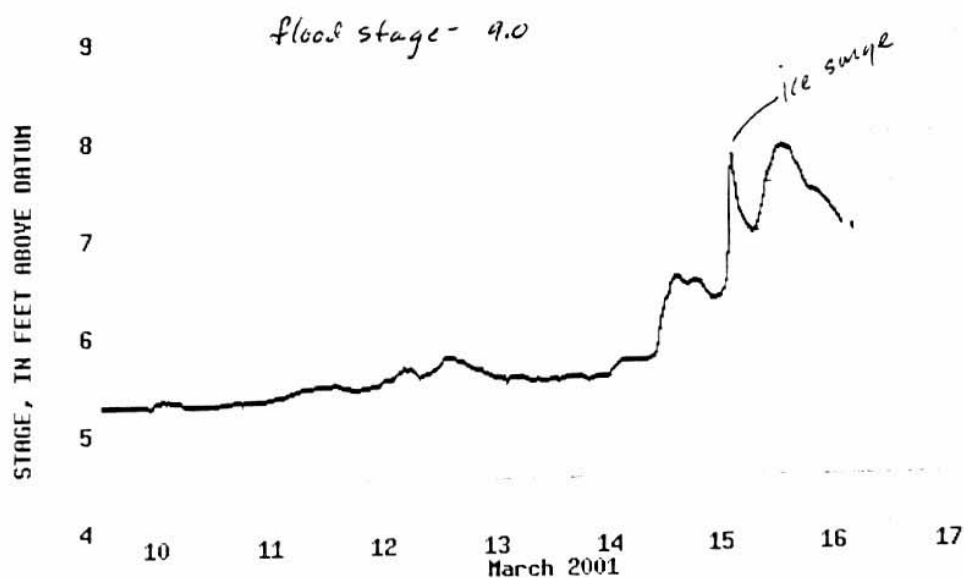


Station funded through cooperative program between the U.S.
Geological Survey and the U.S. Army Corps of Engineers.

Current Conditions

Flow (ft ³ /s)	Stage (ft)	Date	Time
32,400	7.03	03/16	16:00

Streamflow -- updated Fri Mar 16 16:00 2001 -- [download presentation-quality graph](#)Stage -- updated Fri Mar 16 16:00 2001 -- [download presentation-quality graph](#)



- [Data used in graph](#)
- [Historical daily mean or peakflow data for this station](#)
- [Return to Current Streamflow Conditions table](#)

Station Description

STATION.--06805500 PLATTE RIVER AT LOUISVILLE, NE

LOCATION.--Lat 41°00'55", long 96°09'28", in NW1/4 NW1/4 sec.14, T.12 N., R.11 E., Sarpy County, Hydrologic Unit 10200202, on the left bank at the upstream side of bridge on Nebraska Highway 50, 1 mi north of Louisville, and at mile 16.5.

DRAINAGE AREA.--85,370 mi² approximately, of which about 71,000² contributes directly to surface runoff.

PERIOD OF RECORD.--May 1953 to current year. October 1961 to September 1973 published as Platte River at South Bend.

REVISED RECORDS.--WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,007.10 ft above sea level. Dec. 5, 1961, to Sept. 30, 1973, at site 7 mi upstream at datum 31.43 ft higher.

REMARKS.--Records poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

Daily Mean Flow Statistics for 03/16 based on 45 years of record, in ft³/s

Latest flow 03/16 16:00	Minimum	Mean	Maximum	80 percent exceedance	50 percent exceedance	20 percent exceedance
32,400	3,460	10,900	42,000	6,110	9,900	14,900
Percent exceedance means that 80, 50, or 20 percent of all daily mean flows for 03/16 have been greater than the the value shown.						

Flood thresholds

Flow (ft ³ /s)	Stage (ft)



PROVISIONAL DATA SUBJECT TO REVISION

06800500-- ELKHORN RIVER AT WATERLOO, NE

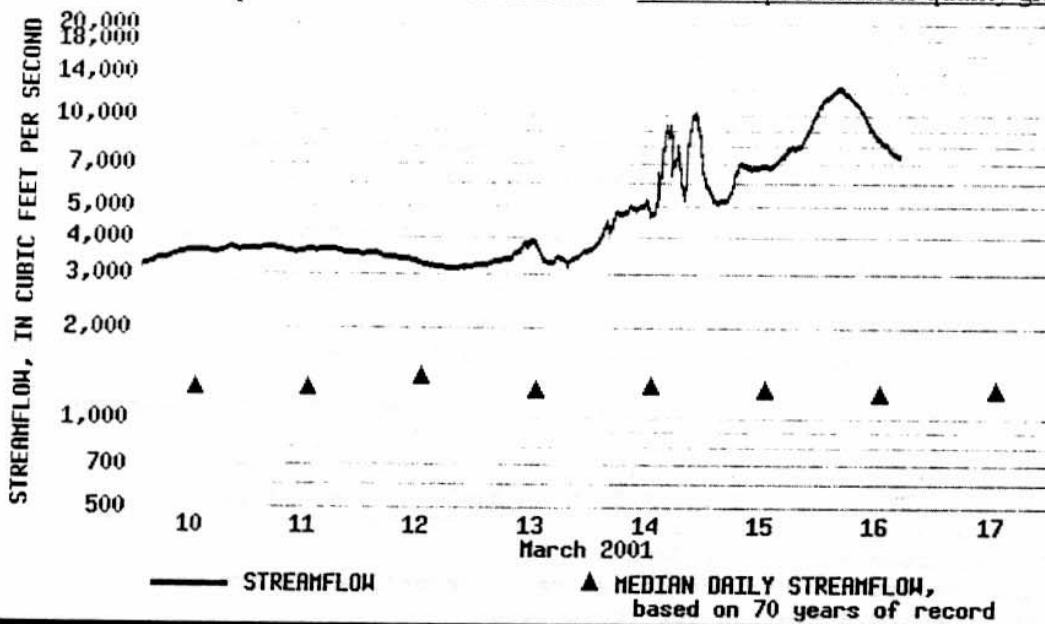


Station funded through cooperative program between the U.S.
Geological Survey and the U.S. Army Corps of Engineers.

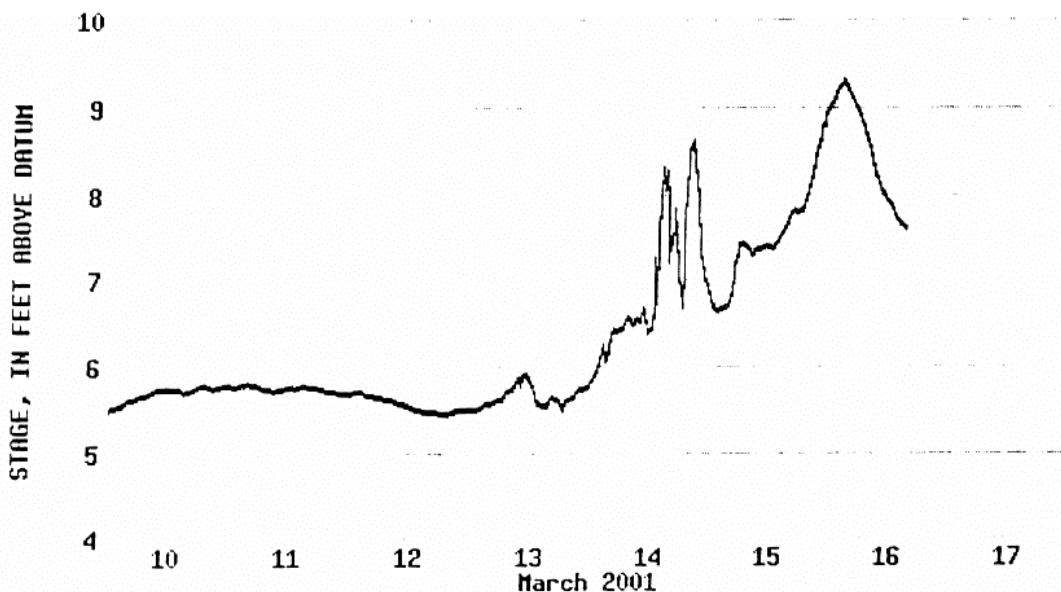
Current Conditions

Flow (ft ³ /s)	Stage (ft)	Date	Time
7,380	7.61	03/16	15:00

Streamflow -- updated Fri Mar 16 15:00 2001 -- [download presentation-quality graph](#)



Stage -- updated Fri Mar 16 15:00 2001 -- [download presentation-quality graph](#)



- [Data used in graph](#)
- [Historical daily mean or peakflow data for this station](#)
- [Return to Current Streamflow Conditions table](#)

Station Description

STATION.--06800500 ELKHORN RIVER AT WATERLOO, NE

LOCATION.--Lat 41°17'37", long 96°17'00", in SW1/4 sec.3, T.15 N., R.10 E., Douglas County, Hydrologic Unit 10220003, on right bank at Nebraska Highway 64 bridge at north edge of Waterloo, 3.5 mi downstream from Rawhide Creek, and at mile 13.8.

DRAINAGE AREA.--6,900 mi², approximately, of which about 5,870² contributes directly to surface runoff.

PERIOD OF RECORD.--April 1899 to November 1903, May 1911 to September 1915, August 1928 to current year. Published as "at Arlington" 1899-1903, July 1913 to September 1915. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1914 (M), 1915, 1936, 1943 (M). WDR NE-94-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,104.73 ft above sea level. Oct. 1, 1960, to July 27, 1978, at datum 2.00 ft higher. See WSP 1918 for history of changes prior to Oct. 1, 1960. July 28, 1978 to Nov. 17, 1993, at site 800 ft downstream at present datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Some small diversions above station for irrigation.

Daily Mean Flow Statistics for 03/16 based on 70 years of record, in ft³/s

Latest flow 03/16 15:00	Minimum	Mean	Maximum	80 percent exceedance	50 percent exceedance	20 percent exceedance
7,380	392	1,900	6,580	764	1,210	3,270
Percent exceedance means that 80, 50, or 20 percent of all daily mean flows for 03/16 have been greater than the the value shown.						



PROVISIONAL DATA SUBJECT TO REVISION

06800500-- ELKHORN RIVER AT WATERLOO, NE

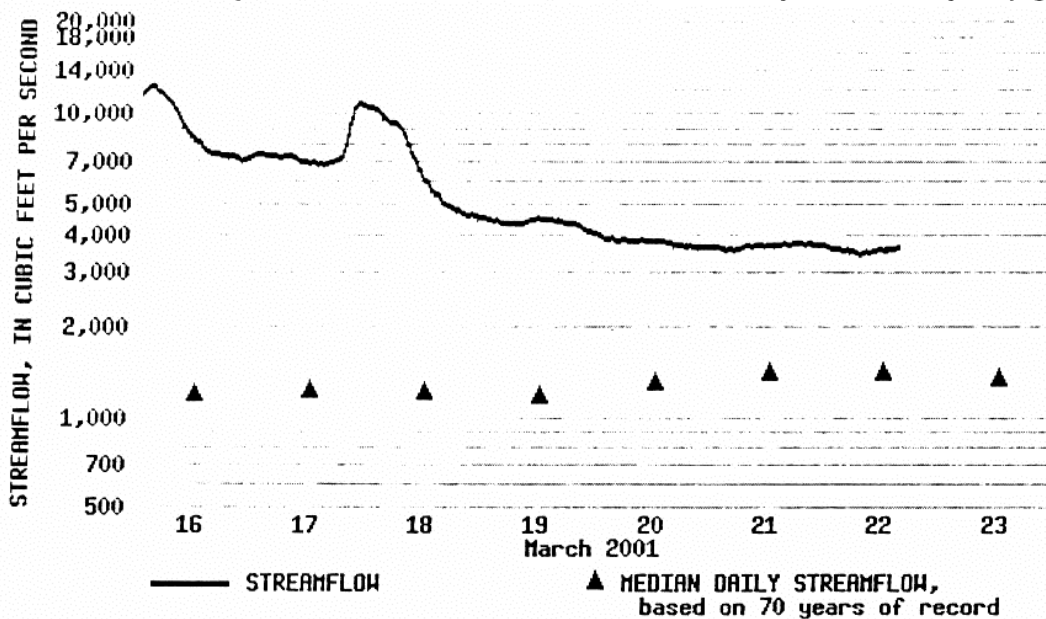


Station funded through cooperative program between the U.S.
Geological Survey and the U.S. Army Corps of Engineers.

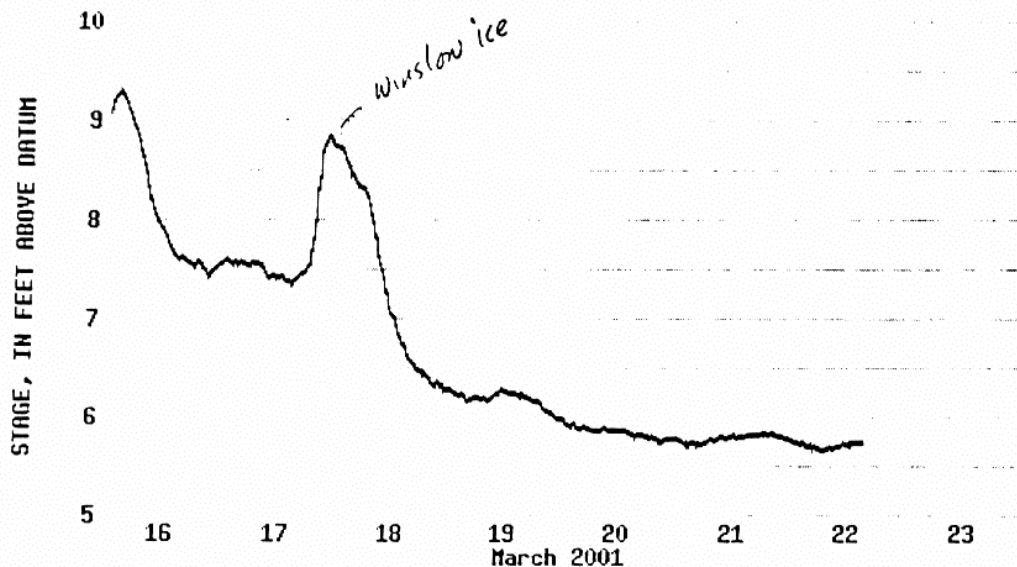
Current Conditions

Flow (ft ³ /s)	Stage (ft)	Date	Time
3,620	5.76	03/22	15:00

Streamflow -- updated Thu Mar 22 15:00 2001 -- [download presentation-quality graph](#)



Stage -- updated Thu Mar 22 15:00 2001 -- [download presentation-quality graph](#)



- [Data used in graph](#)
- [Historical daily mean or peakflow data for this station](#)
- [Return to Current Streamflow Conditions table](#)

Station Description

STATION.--06800500 ELKHORN RIVER AT WATERLOO, NE

LOCATION.--Lat 41°17'37", long 96°17'00", in SW1/4 sec.3, T.15 N., R.10 E., Douglas County, Hydrologic Unit 10220003, on right bank at Nebraska Highway 64 bridge at north edge of Waterloo, 3.5 mi downstream from Rawhide Creek, and at mile 13.8.

DRAINAGE AREA.--6,900 mi², approximately, of which about 5,870² contributes directly to surface runoff.

PERIOD OF RECORD.--April 1899 to November 1903, May 1911 to September 1915, August 1928 to current year. Published as "at Arlington" 1899-1903, July 1913 to September 1915. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1390: 1914 (M), 1915, 1936, 1943 (M). WDR NE-94-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,104.73 ft above sea level. Oct. 1, 1960, to July 27, 1978, at datum 2.00 ft higher. See WSP 1918 for history of changes prior to Oct. 1, 1960. July 28, 1978 to Nov. 17, 1993, at site 800 ft downstream at present datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Some small diversions above station for irrigation.

Daily Mean Flow Statistics for 03/22 based on 70 years of record, in ft³/s

Latest flow 03/22 15:00	Minimum	Mean	Maximum	80 percent exceedance	50 percent exceedance	20 percent exceedance
3,620	340	2,570	27,100	791	1,420	2,990

Percent exceedance means that 80, 50, or 20 percent of all daily mean flows for 03/22 have been greater than the the value shown.

6071

marlin

**PAPIO-MISSOURI RIVER
NATURAL
RESOURCES
DISTRICT**



8901 S. 154TH ST.
OMAHA, NE 68138-3621
(402) 444-6222
FAX (402) 895-6543

**Platte River Ice Thickness
Along Union Dike
Near Valley**

Date		Average Thickness (Inches)
<hr/>		<hr/>
2001	January 3	15
	January 10	15
	January 24	16
	February 7	17
	February 21	19
	March 7	20
1997	February 11	17
1996	February 6	18
1994	February 8	25
	February 28	18
1993	January 27	12
	March 1	18

Memorandum

To: File 536

From: Ron Lehman, O&M Superintendent

Date: March 7, 2001

Re: Platte River Ice Thickness Measurements Along Union Dike

On March 7, 2001, Jason Schnell and the writer took ice thickness measurements on the Platte River. The measurements were taken perpendicular to the river flow, near the dike on the Werner Property, at approximately Station 197+24 (1.9 miles upstream of Highway 64).

A gas powered auger was used to drill the holes. The location of the holes on the table below are measured (stepped off) from the east bank of the Platte River.

Distance From East Bank (Feet)	Ice Thickness (Inches)	Depth From Top Of Ice To River Bed (Inches)
36	23.0	63.0
136	24.0	35.0
286	18.5	41.0
436	18.0	46.0
586	18.5	55.0
786	20.5	42.0
*936	14.0	81.0

Bored Hole Where Ice Was Dusted

**380	16.5	55
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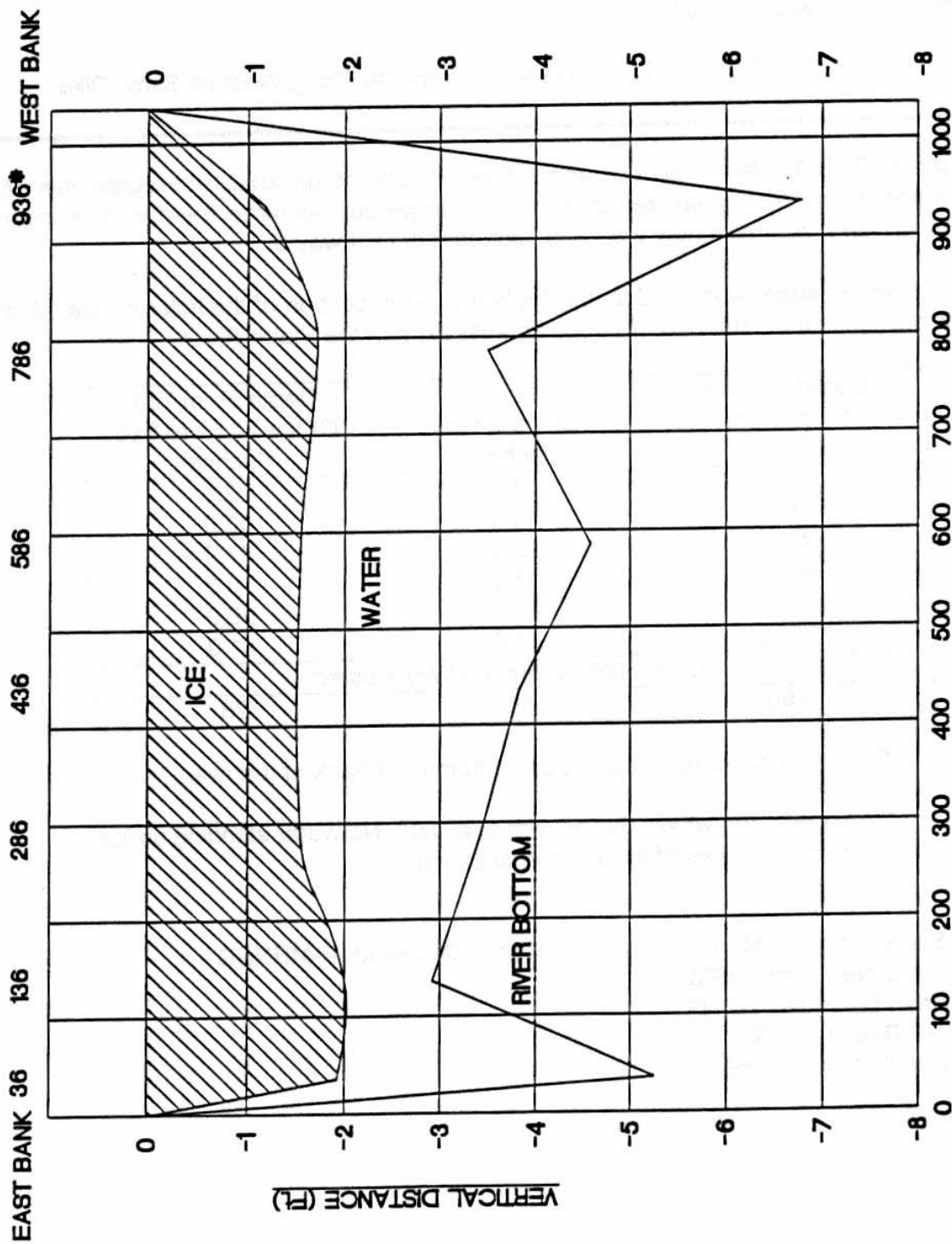
*This hole is located about 100 feet from the west bank of the river.

**Refrozen - no water on ice where dusted. Difficult to tell how wide dusting area is.

cc: Steve Oltmans, Marlin Petermann, Martin Cleveland, P-MRNRD
Cindy Newsham, NEMA
Brian Dunnigan, NDNR
Jeff Reese, NWS
Janelle Mavis, COE

PLATTE RIVER: STA. 197+24, Union Dike (1.9 miles upstream of Hwy. 64)

(Near the Werner Property)



* Hole location is approx. 100' from the west bank. March 7th, 2001

HORIZONTAL DISTANCE (ft)

WEST
Looking South

**RAPID-MISSOURI RIVER
NATURAL
RESOURCES
DISTRICT**
8801 S. 154th St.
Omaha, NE 68138-3621

Memorandum

To: File 536

From: Ron Lehman, O&M Superintendent

Date: March 7, 2001

Re: Platte River Ice Thickness Measurements Along Western Sarpy Dike

On March 7, 2001, Jason Schnell and the writer took ice thickness measurements on the Platte River. The measurements were taken perpendicular to the river flow, near Camp Ashland, approximately 0.5 miles upstream of Highway 6.

A gas powered auger was used to drill the holes. The location of the holes on the table below are measured (stepped off) from the east bank of the Platte River.

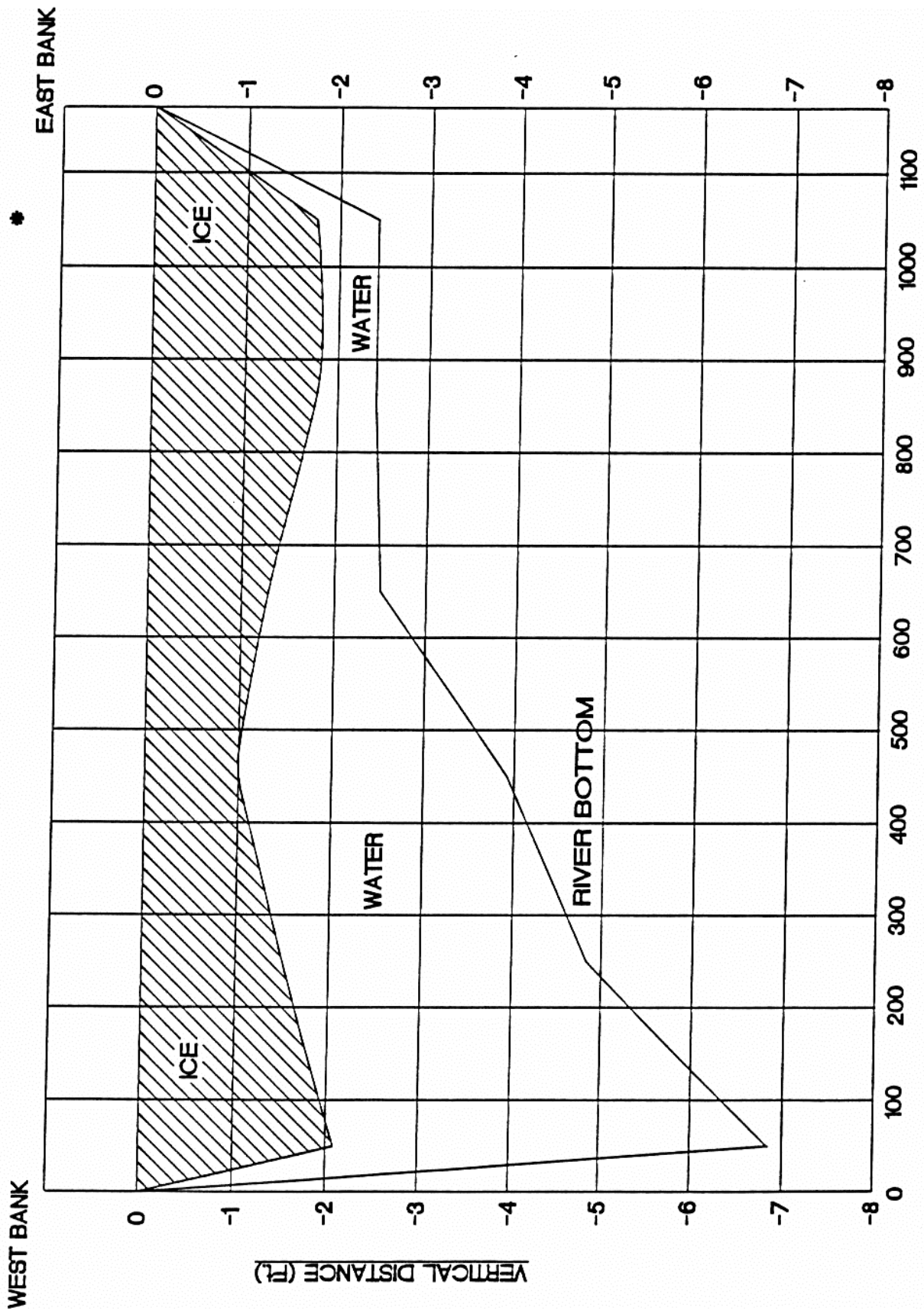
Distance From West Bank (Feet)	Ice Thickness (Inches)	Depth From Top Of Ice To River Bed (Inches)
50	25.0	82.0
250	18.0	58.0
450	12.0	47.0
650	15.5	30.0
850	21.0	29.0
*1,050	21.0	41.0
Bored Hole Where Ice Was Dusted		
**690	15	28

*This hole is located about 120 feet from east bank of the river.

**Area refrozen where dusted with coal ash. No water standing on ice.
Could see flakes of black material on ice.

Cc: Steve Oltmans, Marlin Petermann, Martin Cleveland, P-MRNRD
Cindy Newsham, NEMA
Brian Dunnigan, NDNR
Jeff Reese, NWS
Janelle Mavis, COE

PLATTE RIVER: 0.5 MILES UPSTREAM OF HWY. 6 (NEAR CAMP ASHLAND)



HORIZONTAL DISTANCE (FT.)

* Hole Location is approx. 120' from the East bank. March 7th, 2001



May 8, 2001

MAY - 9 2001

Larry Nedrow
Nebraska Emergency Management Agency
1300 Military Road
Lincoln, NE 68508-1090

Re: Dusting of Ice along the Platte River System

Dear Mr. Nedrow:

We want to thank you for your efforts early this year to provide for dusting of the ice on the Platte River system from south of the Hwy. 6 Bridge, northward toward the Elkhorn River. We believe that this dusting was very instrumental in assisting the decay of the ice and preventing a severe ice jam from occurring when the ice started flowing in the river. We feel this should be continued on an annual basis when there is as much ice, in the river system, as there was this year.

Reviewing the break-up of the ice this year, we have the following suggestion: that the Platte River be dusted from the Interstate 80 bridge northward to the Hwy. 6 Bridge, in both the west and the east channel (the east channel was not dusted this year and there were significant jamming problems on that channel); then continuing northward from the Hwy. 6 Bridge to the confluence of the Elkhorn River; and proceeding one mile up the Elkhorn River and 5 miles upstream on the Platte River above the confluence. With similar conditions in future years, expansion of the dusting, as described above, will be very conducive to a more rapid break up of the ice and prevent major jams from forming.

We would be more than happy to review our comments with you or discuss the matter. We do appreciate your efforts and want to thank you for assisting in the break up of the ice this season. If you have any questions or comments, you can contact myself or Jerry Obrist at 441-7571 at your earliest convenience.

Sincerely,

Allan L. Abbott
Director of Public Works/Utilities

cc: Steve Masters
Jerry Obrist
John Miriovsky
Papio-NRD

KKS NEDROW ALA WPD



May 10, 2001

Honorable Mike Johanns
Governor of Nebraska
State Capital
Lincoln, NE 68508

MAY 15 2001

Re: Dusting of Ice Along of the Platte River System

Dear Governor Johanns:

We want to thank you for your efforts this year to provide for dusting of the ice on the Platte River system from south of the Hwy. 6 Bridge, northward toward the Elkhorn River. We believe that this dusting was very instrumental in assisting the decay of the ice and preventing a severe ice jam from occurring when the ice started flowing in the river. We feel this should be continued on an annual basis when there is as much ice, in the river system, as there was this year. In reviewing the break-up of the ice this year, we have sent suggestions to Larry Nedrow about enhancing the effectiveness of dusting.

We do appreciate your efforts and want to thank you for assisting in the break up of the ice this season. There is no question that these measures averted a serious threat to water supply facilities. On behalf of Lincoln, I must again express gratitude for the ice control measures that were exercised this spring.

Sincerely,

A handwritten signature in black ink that reads "Don Wesely".

Don Wesely
Mayor of Lincoln

cc: Allan Abbott Papio NRD
 Steve Masters Larry Nedrow
 Jerry Obrist Doug Ahlberg
 John Miriovsky



PHIL JOHNSON/THE WORLD-HERALD

IT'S SLOPPY AT SOKOL CAMP: High water caused the Wednesday night evacuation of the small housing area a mile south of Valley. The Platte River, clogged with ice, backed up into low-lying areas.

After 4th Ice Jam, Official Says 'War Is Over' for This Season

3-16-01

BY NATHAN ODGAARD
and DAVE MORANTZ
WORLD-HERALD STAFF WRITERS

A fourth ice jam in a 24-hour period cropped up Thursday afternoon on the Platte River, but it is probably the last one this year, said Steve Oltmans, spokesman for the Papio-Missouri Natural Resources District.

The jam formed one mile southwest of Fremont near the Big Island area, Oltmans said, where lowland flooding occurred.

Bill Pook, emergency manager of Dodge and Saunders Counties, said late Thursday that some residents of cabins along the banks of the river voluntarily evacuated, but no one was ordered to leave.

Oltmans said Thursday night that he expected the jam to cause only minor flooding and to break up by early today. With that, ice jams should no longer be a problem, he said.

"We think the war is over," Oltmans said. Two Platte River jams, one near Valley and another just downstream, caused lowland flooding Wednesday, forcing more than 100 people living in the Sokol Camp and Vencil's Island areas to evacuate their homes.

By Thursday afternoon, those jams had broken loose, Oltmans said. Workers did not have to use dynamite to break up any jams.

One family had to be rescued from Vencil's Island after declining to evacuate earlier, Oltmans said.

Sarpy County Sheriff Pat Thomas said Melissa Goatcher and her baby, Travis, and a man, Steve Mull, were taken off the island about 4:15 a.m. by boat, with the aid of a searchlight from a state helicopter. No one was injured. The mother and baby were taken away by the Gretna rescue squad.

Vencil's Island is a narrow shard of land between the Platte and Elkhorn Rivers. It stretches for about two miles, the lower end at the confluence of the two rivers. Thomas said the family had called to report that ice was brushing up against the cabin.

People who live in the Sokol Camp area were preparing to return home Thursday afternoon, said Richard Tesar, a Sokol Camp resident and a Papio-Missouri NRD board member.

Dodge County Sheriff Dan Weddle said a large jam had formed early in the day on the Elkhorn at the Winslow Bridge and stretched for about a mile north toward Hooper.

High water had closed one county road near Winslow, Weddle said. U.S. Highways 77 and 275 in the area remained open, but his office recommended that drivers be cautious along the routes.

Ice jams occur when ice blocks a river channel, causing water and ice to back up. The water often has nowhere to go except onto low-lying land.

Earlier this year, officials were concerned that thick ice, low water and heavy snowfall could mean a long and

fearsome ice-jam season.

Ice in the Platte River was as thick as 19 inches this winter, he said.

"We were very fortunate," he said. February's dusting of fly ash helped the ice thaw slowly and prevented more flooding problems, he said.

Oltmans said the recent weather with temperatures in the 40s was perfect for alleviating the ice problem.

Temperatures in the 60s on Wednesday, however, forced the ice to break up too quickly. After the jams pass through, the ice problem — at least on the Platte River — should be solved, he said.

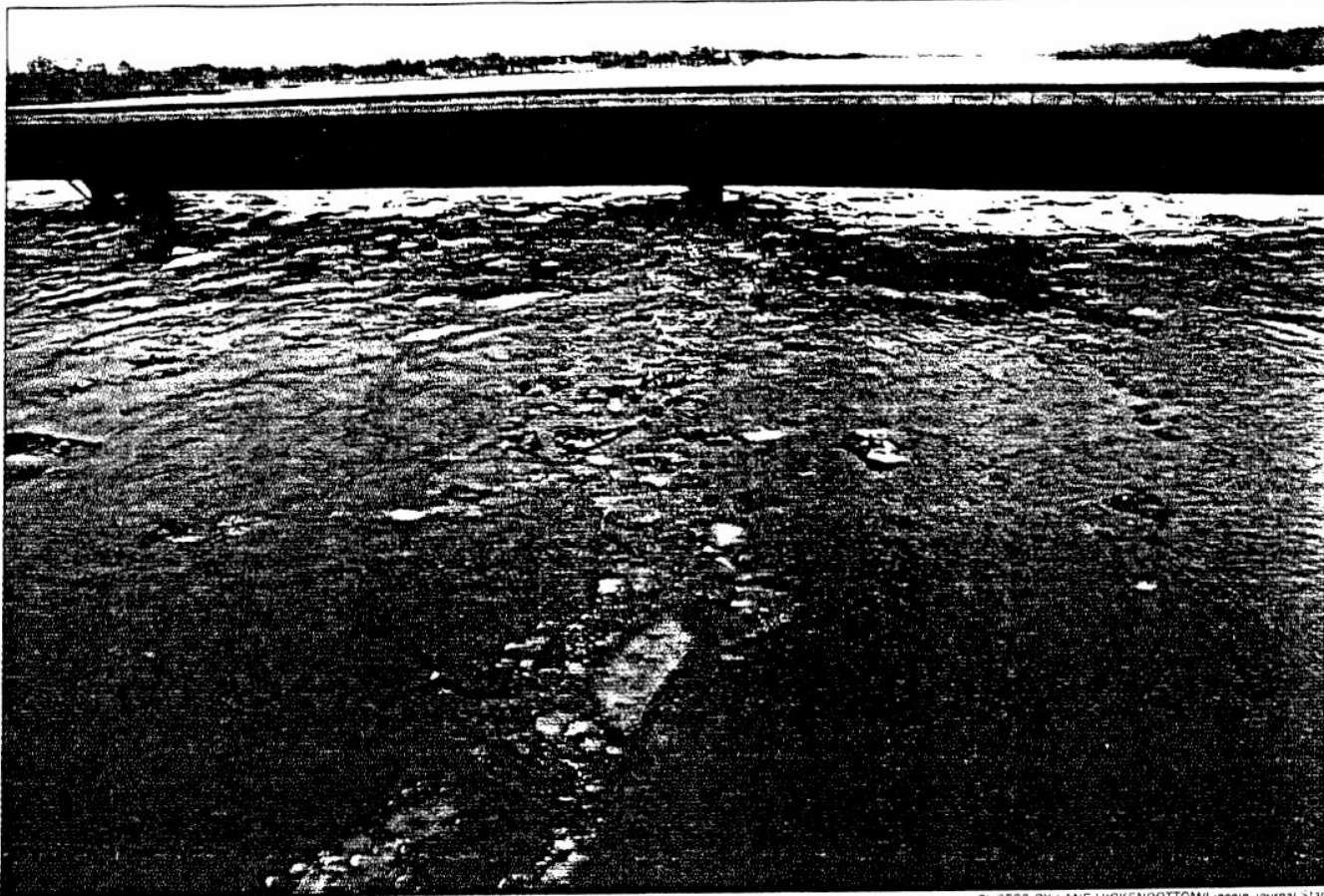
In other parts of the state, flood warnings were posted for Ponca and Bazile Creeks in far northeastern Nebraska.

Rain and snow that fell in southwest Iowa Thursday night contributed to flooding concerns along the Nishnabotna.

An early morning storm Thursday knocked out power to more than 1,000 central Nebraska residents and closed schools Thursday.

Winds and brief periods of heavy snowfall made visibility difficult in some areas, prompting school closings in Kearney, Elm Creek, Pleasanton and Lexington. The Buffalo County Courthouse closed for the morning.

World-Herald staff writers Veronica Rosman and James Ivey contributed to this report, which also includes material from the Associated Press.



PHOTOS BY LANE HICKENBOTTOM/Lincoln Journal Star

Ice and debris float beneath a railroad bridge over the Platte River just north of the U.S. 6 bridge near Ashland. The threat of flooding subsided Thursday after ice jams on the river broke up.

Ice jams break up, move downstream

BY AL J. LAUKAITIS
Lincoln Journal Star

3-16-01

ASHLAND — Fears that the Platte River would rise higher and chase more people from low-lying areas subsided late Thursday morning as ice jams broke up and slabs of ice and other debris floated downstream past the U.S. 6 bridge.

"Virtually all of the Platte has cleared itself," said Jeff Reese, hydrologist with the National Weather Service Office in Valley. "There is a continuous channel from Fremont to the Missouri River."

More than 100 people left their homes late Wednesday night after ice jams sent water into at Sokol Camp, a cabin development just southwest of Valley. Sarpy County officials also rescued a family by boat early Thursday morning after water surrounded their home at Vencil's Island near the confluence of the Elkhorn and Platte rivers.

"At this point in time the jams have broken on those areas and are moving out rather rapidly," said Al Berndt, assistant director of the Nebraska Emergency Management Agency.

Dean Busing, with Western Sand & Gravel Co., sat in his red pickup truck Thursday morning at Beacon View residential development north of the U.S. 6 bridge and watched nervously as sheets of ice, logs and other debris floated in a wide, dirty channel. He said he saw the river rise within 4 inches of the top of the Clear Creek Levee shortly after 9 a.m. Thursday. That was too close for comfort.

"It's been as close as '93, when it really got us," Busing said.

In 1993 floodwaters broke through levees on

and farm fields and devastated Lincoln's well fields along the Platte River, causing millions of dollars in damage.

Officials expected a similar event this year because the ice on the Platte River in recent weeks was 19 inches thick in places — an inch more than in 1993. They credited ash dusting of the river and gradual rising temperatures with helping to break up the ice.

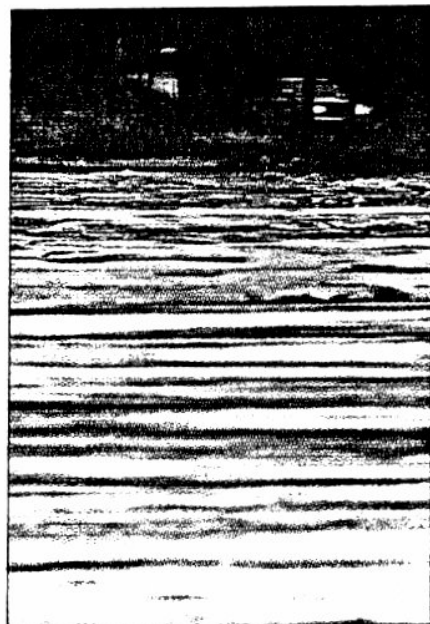
"The last jam, the one on the (Douglas-Sarpy) county line broke loose and started to break up significantly about 11:30 a.m.," said Steve Oltmans, general manager of the Papio-Missouri River Natural Resources District. "We're home free this year."

Oltmans was considering dynamite to break three major ice jams on the river. But by Thursday afternoon he was breathing a sigh of relief.

"The lousy weather that most of us didn't like really was a salvation, because we got a slow thaw," Oltmans said. "The dusting really helped, because we were able to get the Platte open below the junction before the Elkhorn ice came out."

Another set of riverside cabins near Fremont, in an area called Big Island, faced slight flooding Thursday afternoon when ice got stuck near a bridge for U.S. 77, weather service meteorologist Gary Wiese said. Water rose between 1 and 3 feet at different places.

The weather service was still monitoring the Elkhorn Thursday because plenty of ice remained. Jams were reported in the vicinity of Winslow and around West Point. He said most of the jam problem appears to be in Cumming and northern Dodge counties.



Dean Busing of Western Sand & Gravel Co. watches the Platte River from his truck near Ashland. Busing said the Platte rose to within four inches of the top of Clear Creek Levee Thursday morning.

not freeing up as easily as down here. There's also a lot greater flow in the Platte than the Elkhorn."

Water levels on the Little Blue River also continued to drop Thursday.

Reese said he doesn't foresee any major flooding from ice jams along the lower reaches of the Platte River.

"I don't get the impression we're going to have to worry about too many things," he said.

Blasting Clears ^{OWH} Ice Jam ³⁻¹⁹⁻⁰¹ Elkhorn River Was a Threat

BY JAMES IVEY

WORLD-HERALD STAFF WRITER

Winslow, Neb. — There was a little extra kick to St. Patrick's Day at Winslow, Neb., this year as about 800 pounds of explosives were used to successfully loosen an Elkhorn River ice jam there.

In what looks like the only blasting of the 2001 ice jam season, blockage just below the U.S. Highway 77 bridge at Winslow was knocked free late Saturday afternoon, said Bill Pook, emergency manager for Dodge and Saunders Counties.

Under mild blue skies, said Pook, "it was picture perfect."

Platte River ice jams formed last week in Douglas and Sarpy Counties, but that ice has moved out without blasting.

Blasting on the Elkhorn was approved by the Dodge County Board because of a possible threat to Winslow, Pook said.

The jam formed Wednesday and closed one county road but was no threat to Winslow.

Then, Pook said, on Friday a four-mile jam on the Elkhorn near West Point broke loose under thawing temperatures and began to move south.

"There was a chance that jam could knock the Winslow jam loose but that looked like a gamble," he said.

So officials decided Saturday to blast.

Elkhorn water could have backed up into Winslow, he said.

Dynamite laced with a farm fertilizer, ammonia nitrate, which gives an added wallop, was used.

Pook said a helicopter knocked blocks free and opened the river in about 40 drops.

The Winslow jam was in a location where the Elkhorn turns sharply.

Pook said he has been told that the river is open now both above and below the Winslow site.

Official Mulls Charging For Flood Rescues

BY JOE DEJKA
WORLD-HERALD STAFF WRITER

A dramatic river rescue Thursday in northwestern Sarpy County was unnecessary, according to Sarpy County Commissioner Tim Schram.

If the stranded residents paid attention to flood warnings, they could have gotten out before the river surrounded their house at Vencil's Island, Schram said Monday.

The commissioner said he plans to ask the Sarpy County attorney to research whether residents who ignore warnings can be billed for the cost of their rescue.

"During every flood event," he said, "we go through this scenario, extracting people who call 911 and need to be removed."

Schram said he doesn't want to end rescues. And he realizes, he said, that people sometimes use poor judgment.

But he said people who live in harm's way should know they do so at a cost.

The cost of last week's rescue was \$4,377, according to Dan Peterson, director of the Sarpy County Emergency Management Agency.

Twelve agencies were involved in the nighttime operation that retrieved a man, a woman and a baby from a small house on the peninsula formed by the marriage of the Platte and Elkhorn Rivers, Peterson said.

"Those are not places people should live permanently, not by a river that's known to flood," he said.

Neighbors of the stranded residents paid heed to television reports of flood danger and evacuated, Peterson said.

The residents who were rescued had driven through rising water to reach their house, he said. "They were aware it wasn't so smart to be there."

The residents called 911 after water surrounded the house and ice chunks slammed against its pilings, rumbling the house like thunder, according to Sarpy County Sheriff Capt. Rollie Yost, who heads the county's water rescue team.

The flood was caused when warm weather broke up a sheet of ice and the pieces floated downstream and clogged the channel. That diverted the water toward the house and across the access road.

A beam of light from the Omaha police helicopter lighted the way for rescuers in a motorized rubber raft, which dodged obstacles as it crossed a flooded road and several hundred

"Those are not places people should live permanently, not by a river that's known to flood."

Dan Peterson

Director, Sarpy County
Emergency Management Agency

yards of water. Rescuers nosed the boat up to the back door and whisked the residents to safety.

An Army National Guard Black Hawk helicopter in Lincoln was put on standby in case the boat rescue failed and a cable hoist was needed to lift them off the roof, Yost said.

The police helicopter lacked a hoist, and there was no safe place near the house for it to land.

The operation also involved the Sarpy County and Douglas County 911 centers, the Gretna and Springfield Fire Departments, Eppler Airfield's search and rescue team, the Nebraska Emergency Management Agency and the U.S. Air Force Rescue Coordination Center.

Yost said the county stands ready to help those in need, but "we don't want to take unnecessary risk with personnel if we can avoid it."

Lt. Tom Donaghy, commander of the Omaha police helicopter unit, said the unit cannot seek compensation when helping out another agency with a rescue, so such costs are built into the unit's budget.

The helicopter crew spent five hours on the rescue, he said. On a typical night it flies about six hours, he said.

Bellevue Fire Chief Dale Tedder, whose water rescue team has yet to deploy this season, said the ultimate solution is for the government to buy homes in the floodway and remove them.

The Papio-Missouri River Natural Resources District has done so, with only partial success, encountering stiff opposition from some residents.

Schram said his suggestion to charge for unnecessary rescues probably will rile those riverside residents determined to stay in their homes.

"I'd rather lose a vote than lose the life of a resident or an emergency responder," he said.

owl
3-20-01

